

WHAT IS CLAIMED IS:

1. A process of making a foam composite of desired pore size and conformation which comprises:
 - 5 (a) preparing an emulsion of a hydrophilic polyurethane prepolymer which upon curing forms a substantially open cell hydrophilic polyurethane polymer foam;
 - (b) contacting an open cell hydrophobic polyurethane foam having a plurality of surfaces defining a plurality of pores with said hydrophilic polyurethane prepolymer emulsion;
 - 10 (c) curing said hydrophilic polyurethane prepolymer emulsion while in contact with said hydrophobic polyurethane by contacting said emulsion with a gas at elevated temperature for a period of time sufficient to form a coating of said substantially open cell hydrophilic polyurethane polymer foam on said hydrophobic polyurethane foam.
2. A process as recited in claim 1 wherein the temperature of the said curing
15 step, the hiatus between steps (b) and (c) and the duration of said curing step are controlled to create a foam having the desired properties.
3. A process of making a foam composite containing a particular additive which comprises:
 - (a) preparing an emulsion of a hydrophilic polyurethane prepolymer
20 which upon curing forms a substantially open cell hydrophilic polyurethane polymer foam;
 - (b) contacting a finely divided additive with a hydrocarbon gas and slurring it in a fluid;
 - (c) emulsifying the said slurry of step (b) with the solution of prepolymer of step (a);
 - 25 (d) contacting an open cell hydrophobic polyurethane foam having a plurality of surfaces defining a plurality of pores with said polyurethane prepolymer solution containing said additive and;

(e) curing said polyurethane prepolymer for a period of time sufficient to form a coating of said substantially open cell hydrophilic polyurethane polymer foam containing said additive on said hydrophobic polyurethane foam.

4. A process as recited in claim 3 wherein the curing step (c) is carried out by
5 contacting the composite with a gas at elevated temperatures in order to create an additive--
containing foam of desired porosity and conformation.

5. A process as recited in claim 3 wherein the additive is activated carbon.

6. A foam composite made by the process of claim 1.

7. A foam composite made by the process of claim 3.